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Method and System for Electronic Media Delivery (EMD) Using e-Contracts and Business Rules

This application claims priority pursuant to 35 U.S.C. §119 from Provisional Patent Application Serial No. 60/143,283 filed July 12, 1999, the entire disclosure of which is hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention generally relates to the electronic distribution of media using a computer network and specifically to a method and system for the electronic distribution of media using a computer network where the distribution is controlled by electronic contracts and business rules.

BACKGROUND OF THE INVENTION

The music industry has fast become a part of the electronic commerce movement using the Internet. Music is streamed over the Internet and consumers may select the music to be received (e.g., played after download, or streamed) at the consumer's computer terminal or processor-enabled device. Consumers may purchase music over the Internet using complex back-office systems. One of the features that enables electronic commerce of music over the Internet to be profitable, is the continued control over the music

even after the data is delivered to the consumer. In addition, there are potentially many parties having an ownership or financial interest in any given music item, or the distribution or consumption of an item, and each party's interest must be reliably tracked.

Conventional methods of keeping track of various parties' interests require custom programming and manual setting and are not suitable for a completely electronic commerce system. There is a need for a system and method of tracking and protecting the ownership or financial interests of all parties involved that is conducive to electronic commerce. The present invention satisfies this and other needs.

SUMMARY OF THE INVENTION

The present invention is a method and system for electronically distributing media through a computer network to users, in a manner consistent with electronic contracts and business rules provided by entities having proprietary interest in the media being distributed. In addition to facilitating the delivery of media to network users, the present system facilitates the related business and/or financial transactions associated with such delivery. To facilitate the transactions, the system obtains relevant terms and conditions of distribution in the form of electronic contracts and/or business rules. The electronic contract may be viewed conceptually as an equation governing the relationship between certain parties or entities. The specific values for the variables in the equation are determined according to each particular circumstance in order to create the specific electronic contract or relationship for that circumstance. The typical entities having an interest in the media being distributed include a distributor who has ownership rights to the media, and a retailer

who contracts with the distributor to obtain rights to market, sell, and distribute media to consumers. Other participants in the value chain having an interest in the media being created, distributed or consumed, include one or more of the following: network providers, internet service providers, websites, clubs and the like.

An electronic contract represents an agreement between two or more entities, typically the retailer and distributor of some media. A variety of electronic contracts may be implemented by the system. A "distributor-retailer distribution contract" sets forth the terms and conditions under which the retailer may distribute media to consumers. A "distributor-retailer financial contract" sets forth the terms and conditions under which the retailer and the distributor are compensated for the distribution of the media. Other contracts cover variations of these two distribution and financial contracts. For example, contracts may cover agreements between a distributor and a group of retailers instead of individual contracts for each retailer. In addition, contracts may, for example, cover a specific selection of media, e.g., media produced during a specified period or by a certain artist.

Business rules set forth the distributor's (or content owner's) terms governing the distribution of specific content independent of any contracts between the parties. "General content distribution rules" include rules for distributing a specific unit of media, i.e., a content element, and are packaged with the content ready to be distributed to a consumer. "General distribution rules" include rules for distributing content not otherwise covered by some rule or contract. "Suggested business rules" represent suggested conditions, including, for example, price ranges for certain transactions.

In applying the rules, the system considers any contract or rules pertaining to the distributor, retailer, and content taking part in the proposed transaction. If there is more than one relevant contract or rule, and an inconsistency is posed, it is resolved by applying the more specific terms rather than the broader terms.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects, features and advantages of the invention discussed in the above summary of the invention will be more clearly understood from the following detailed description of the preferred embodiments, which are illustrative only, when taken together with the accompanying drawings in which:

Figure 1 is a block diagram of an arrangement of modules for implementing the preferred embodiment of the present invention;

Figure 2 is a flow chart showing the validation process of the preferred embodiment; and

Figure 3 is a flow chart showing the determination of revenue disbursement according to the preferred embodiment.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

In the preferred embodiment of the present invention, the electronic media distribution method uses electronic contracts (e-Contracts) and business rules to control the distribution.

By way of overview and referring to Figure 1, the Electronic Media Delivery (EMD) system includes the following modules: Production System, Content Catalog, Reference Service, Delivery Service, Retail Site, Clearing House, Registration Manager and Consumer Player. These modules comprise the high-level functional architecture of the EMD service for the PC platform. Each of these modules performs a specific set of related functions while communicating with other modules through specified standard interfaces. The modules are defined such that multiple implementations of each module can be supported within the standard interfaces.

The Production System 110 maintains mass data content, e.g., music, lyrics and photos, and associated commercial offers and sends the data to the Delivery Service 118 for storage. The Production System also assists retailers in maintaining their web sites and producing offers. The Retail Web Sites 112 are web sites of music retailers who subscribe to the distribution service and provide an environment for consumers to access and purchase music over the Internet. These web sites provide retail commercial offers (rights) for the EMD content and can be accessed by consumers via regular web browsers (e.g., Netscape Navigator or Microsoft Explorer). The Reference Service 116 validates and certifies the retailer's offers and provides the mechanism for consumers to purchase the content by binding it with valid commercial offers. The Consumer Player 114 enables consumers to interact with the system to directly download and purchase music from the Retail Web Site and play and store the music locally while enforcing the business rules governing the purchase or use arrangement. The Delivery Service 118 downloads the actual content and associated rights from its database to the Consumer Player. The Content Catalog 120 is a

database optimized for quickly finding the content based on a constrained set of attributes and can be accessed via a query function implemented at the Retail Web Sites. The Registration Manager 122 downloads the Consumer Player for the consumer the first time the consumer uses the system and maintains the system's security on an ongoing basis. The Financial Clearinghouse 124 manages the complete purchase by performing payment and rights processing and settlement for certain transactions and manages purchase reporting and settlement of other transactions where the actual purchase is processed by the Consumer Player. The combination of these modules and their relationships and interfaces forms the basis for the overall operation of the EMD system.

The Production System 110 prepares content for electronic distribution by packaging content and associated rights in a secure environment. The resulting content packages are "staged" in the distribution infrastructure for delivery via the Delivery Service. The Retailers add, or have added on their behalf, their commercial business rules (offers) for the consumption of the content. These offers are validated and certified by the Reference Service. The Retailers place their offers and the appropriate HTML references (e.g., sampling links) on their web sites for access by the consumer. The Content Catalog has the content descriptions in its directory while the Reference Service has a description of the content, its associated rights, contractual constraints and retail offers in its directories. The Delivery Service has the actual content packages in its databases. The acquired rights to consume content are managed by the Clearinghouse 124 in conjunction with the Player 114.

The consumer, who downloads and activates via the *Registration Manager* the specialized EMD software (the "player" including the Rights Management Software or

RMS), on finding an offer at a retail web site, may select the offer by "clicking" on it. This transparently sends a message to the Reference Service to validate the offer and, subsequent to the validation, the Reference Service, optionally in conjunction with the Player, instructs the Delivery Service to commence the download of the content to the user's "player." The user may also find content by searching the Content Catalog using the "query" function on the retailer's web site. In addition, content may be acquired from another user (superdistribution) or on physical discs (e.g., DVD, ECD). When the offer is executed, the consumer is given the "right" (e.g., key) to consume the content. This right may be maintained at either the Clearinghouse, the Player or both.

When the user exercises the offer (purchases) and acquires the right to consume the content, their player interacts with the Rights Management Software and (possibly at a later time) with the appropriate Electronic Clearinghouse Service to enable the transaction. Rights to physically distributed content may be handled in the same manner as electronically distributed content.

Typically there are two categories of retailers. The "EMD-Enabled" or "EMD-Equipped" retailers are licensed to use specialized tools *(Dynamic Offer Creation Tools)* which allow them to create EMD content offers on-site. Affiliate Retailers not equipped with such tools have offers created for them. Using a combination of Content Catalog and Reference Service, Retailers may even offer (at the "list price") content for which they themselves have no references and no pre-made offers. Thus, Retailers are able to participate in the EMD system with a minimum amount of effort. This may be subject to

operational restrictions; i.e., the retailers which do not create offers themselves might be limited in the type and/or the numbers of offers they can request.

Settlement of transactions in the EMD system may be Contract or Deferred. The Contract transaction is settled at the Retailer at the time of content delivery, while the Deferred transaction is settled upon consumption of the content. The Contract transaction is similar to the current e-commerce schemes: consumer pays and then receives the product. The Contract transaction settlement may be performed by an EMD-compliant Financial Clearinghouse or by any other (non EMD-compliant) Clearinghouse of the Retailer's choosing. The Deferred transaction is settled during or after the consumption, by one of the EMD-compliant clearinghouses.

Typically, when a new retailer becomes part of the EMD system, a "paper" contract is first executed. For the EMD system, the "paper" contract is encoded into two e-Contracts: Distribution and Financial. For a large full-featured retailer these generally are a *Distributor -Retailer Distribution Contract* and a *Distributor -Retailer Financial Contract.* Affiliate retailers generally may fall under already existing *Group Distribution Contract* and a *Group Financial Contract*. Distribution contracts are stored in the Reference Service, while the Financial contracts are stored in the financial clearinghouse. Full-featured retailers may receive a secure copy of their *Distributor - Retailer Distribution Contract* which may be included in their Retail Tools.

When a new title or content element is prepared for EMD distribution, the distributor produces Ge*neral Content Distribution Rules* which are packaged with the content. These rules may also be stored in the Reference Service and sent to the full-featured

retailers who decide to offer the title. The distributor decides whether existing "blanket" contracts apply or whether specific contracts need to be established. In the latter case, a *Group Content Distribution Contract* and/or a *Retailer Content Distribution Contract* may be generated for distribution purposes, while a *Specific Content Financial Contract (Term Sheet)* and/or a *Specific Content Group Financial Contract* may be produced for financial settlements. As discussed previously, Distribution contracts are stored in the Reference Service, while Financial contracts are stored in the financial clearinghouse, and Full-featured retailers receive a secure copy of their *Retailer Content Distribution Contract* which may be included in their Retail Tools.

A Distributor - Retailer Distribution Contract is a set of business terms expressing a contractual relationship for content distribution between a distributor and a specific authorized EMD retailer. This contract applies to all titles (content) distributed by that retailer. Some examples are as follows:

"Retailer A may sell distributor's content in the Territory X."

"Retailer A may use its own e-commerce system for selling EMD content."

"Retailer A may offer distributor's content on a 'purchase outright' basis."

"Retailer A may not offer distributor's content on a 'rent to own' basis."

A Group Distribution Contract is a set of business terms expressing a contractual relationship for content distribution between a distributor and a group of authorized EMD retailers (e.g., Affiliate Retailers). This contract applies to all titles (content) distributed by that group of retailers. For example, "Affiliate Retailers may offer distributor's content on a 'purchase outright' basis only."

A Group Content Distribution Contract is a set of contractual requirements expressing terms for distribution of a specific unit of content and applies to a group of authorized EMD retailers (e.g., Affiliate Retailers) distributing that content (title). For example, "This content can be offered by Affiliate Retailers on a 'purchase outright' basis only."

A Retailer Content Distribution Contract is a set of contractual requirements expressing terms for distribution of a specific unit of content by a specific retailer. This contract applies to that retailer only and that content (title) only. For example, "This content can be offered by Retailer A on a 'rent-to-own' basis."

General Content Distribution Rules are contractual requirements expressing terms for distribution of a specific unit of content (title). These rules apply to all authorized EMD retailers distributing that content (title). Examples of such rules include:

"This content can only be distributed in the Territory X only."

"This content can be offered on a 'purchase outright' or 'pay-per-play' basis."

"Offers on this content can be made for up to 3 months duration."

General Distributor Rules are requirements expressing a distributor's terms for distribution of its content which have not been expressed elsewhere. Exceptions fall into this category. These rules apply to all retailers offering the distributor's content. Examples of such rules include:

"Retail Offers can not combine content from Distributor A and Distributor B."

"Retail Offers can not combine content from Artist C and Artist D."

Suggested Distributor Rules are not based on contractual requirements but rather represent suggestions designed to prevent human errors which may not violate contracts per se but may not make logical sense. Generally, these rules apply to all retailers offering the distributor's content. Examples include: "Retail price for this content is expected to be between $8 and $12." If someone enters a price of $1, this rule may prompt them to confirm "Are you sure you meant $1?"

A Distributor - Retailer Financial Contract is a set of business terms expressing a contractual relationship for division of revenues between a distributor and a specific authorized EMD retailer. This contract applies to all content distributed by that retailer. Some examples are as follows:

"Retailer A pays distributor $8 for each AA title sale up to 10,000 sales, $7.50 between 10,000 and 20,000 sales, $7 over 20,000 sales (wholesale model)."

"Retailer B receives 10% commission for each pre-superdistribution sale, 7.5% for the first super-distribution, 5% for the second super-distribution, 2.5% for the third super-distribution, 0% afterwards (commission model)."

A Specific Content Financial Contract (Term Sheet) is a set of business terms expressing a contractual relationship for division of revenues between a distributor and a specific authorized EMD retailer for a specific unit of content (title). This contract applies only to this content (title) distributed by the retailer. For example, "Retailer A pays distributor $10 for this title sale up to 50,000 sales, $9 between 50,000 and 100,000 sales, $8 over 100,000 sales (wholesale model)."

A Group Financial Contract is a set of business terms expressing a contractual relationship for division of revenues between a distributor and a group of authorized EMD retailers (e.g., Affiliate Retailers). This contract applies to all content distributed by that group of retailers. For example, "Affiliate Retailers receive 10% commission for each pre-superdistribution sale, 5% for the first super-distribution, 0% afterwards (commission model)."

A Specific Content Group Financial Contract (Term Sheet) is a set of business terms expressing a contractual relationship for division of revenues between a distributor and a group of authorized EMD retailers (e.g., Affiliate Retailers) for a specific unit of content (title). This contract applies to that unit of content only and to that group of retailers only. For example, "For Title X Affiliate Retailers receive 5% commission for each pre-superdistribution sale, 2.5% for the first super-distribution, 0% afterwards (commission model)."

Algorithms for Applying Rules / e-Contracts

The e-contracts and business rules related to distribution are accessed and applied when the system validates an offer. The same algorithm applies whether the offer is a candidate offer from a retailer or an offer being exercised by a consumer.

In applying the e-contracts and rules, the general approach is that a more specific contract or rule overrides the less specific one. For example, if the retailer's contract says "no pay-per-play" offers but for a specific title a retailer has a contract allowing "pay-per-play" offer, such an offer will be allowed for that title only. In the offer management all the applicable sets of rules (contracts) must be tested in the validation process.

For example, Retailer A presents a candidate retail offer for the Title B. Reference Service runs a validation process presented below. Referring to Figure 2, for each contract or rule that may be applicable, the Reference Service (RS) determines whether the candidate offer is consistent with the applicable contract or rule. At step 20, the RS determines whether there is a *Retailer Content Distribution Contract* for Retailer A, Title B. If such contract exists, the RS determines whether the candidate retail offer is consistent with the contract. At step 22, if Retailer A belongs to a Group G, the RS determines whether there is a *Group Content Distribution Contract* for Group G, Title B and whether the candidate offer is consistent with this contract as well. At step 24, RS references the *General Content Distribution Rules* for Title B and checks for consistency. At step 26, if there is a *Distributor – Retailer Distribution Contract* for Retailer A, the RS determines whether the candidate offer is consistent with this contract. At step 28, if Retailer A belongs to a Group G, the RS checks the applicable *Group Distribution Contract.* At step 30, the RS references the *General Distributor Rules* and at step 32, the *Suggested Distributor Rules* to confirm that the candidate offer is consistent with these rules.

If all checks are satisfied, the offer is validated. In the sequence presented the more specific checks (lower numbered steps) override any less specific checks (higher numbered steps) when there are conflicts. The order in which the contracts and rules are referenced may be determined by the specificity of the terms within the contracts.

E-Contracts and business rules, if any, related to financial transactions are applied when an offer is exercised by a consumer. For example, a record of transaction is reported to a financial clearinghouse when a consumer exercises an offer from Retailer A for

the Title B. To determine revenue splits the Financial Clearinghouse runs a process presented below. This is a simplified process ignoring volume discounts. Referring to Figure 3, at step 34, the financial clearinghouse (FCH) determines whether there is a *Specific Content Financial Contract (Term Sheet)* for Retailer A, Title B. If such a contract exists, the FCH applies the contract terms to the reported record of transaction. At step 36, if Retailer A belongs to a Group G, and there is a *Specific Content Group Financial Contract* for Group G, Title B, FCH applies these terms as well. At step 38, the FCH determines whether there is a *Distributor-Retailer Financial Contract* for Retailer A and if present, applies this contract to the reported transaction. At step 40, if Retailer A belongs to a Group G, the FCH checks and applies a *Group Financial Contract.*

Staging of e-Contracts and Business Rules in the EMD System

Upon receipt, an e-contract or business rules are staged at modules that use the information. In general, distribution information is stored in the reference service module and financial information is stored in the financial clearinghouse module or the production system module. Some information may be stored in more than one location. Specifically, a Distributor – Retailer Distribution Contract, Group Distribution Contract, Group Content Distribution Contract, and Retailer Content Distribution Contract are all stored in Reference Service. The Distributor – Retailer Distribution Contract may also be stored in the Retail Tools of full-featured retailers. Retailer Content Distribution Contract may also be provided to specified full-featured retailers. The General Distributor Rules, General Content Distribution Rules, and Suggested Distributor Rules may all be stored in

the Reference Service. In addition to the Reference Service, the General Content Distribution Rules may be stored with the content (as Default Rules) and may be provided to full-featured retailers. Distributor - Retailer Financial Contract, Specific Content Financial Contract (Term Sheet), Group Financial Contract, and Specific Content Group Financial Contract (Term Sheet) may all be stored in the Financial Clearinghouse or in the Distributor's Backoffice Systems, i.e., the Production System.

Pricing Models

Price Dereferencing (by Category): In the price dereferencing pricing model, prices are never directly referred to; rather they are dereferenced. Each content element, e.g. title, is assigned to a category and pricing is determined according to the categories. For example, if a front line category is a title, e.g., AA, all AA titles may currently be $15.98. However, if at some time in the future, front line titles AA increase to $16.49, then this information will be stored locally and would be used to display current prices when purchasing off line.

There is one case where a title is allowed to migrate from one category to another, and this is from a list price category to a super-list category. List prices apply to conventional distribution, typically from a retailer to a consumer. Super-list prices apply to super distribution transactions where a consumer distributes the content (it received from a retailer) to other consumers who in turn may further distribute the content to more consumers. This is generally limited to a few titles. Moving a title from Super-list back to List means removing it from the lookup table.

Territorial considerations taken into account in the pricing model include whether an item is distributed by the same distributor in multiple territories or whether an item is distributed by multiple distributors in the same territory.

Dynamic and/or volume based pricing may be implemented, in addition to default or fixed pricing.

Super distribution tracking: The handles or pointers to data or content objects may be super distributed. Each time that they are super distributed, a counter in the handle

can be incremented. Whether or not a retailer participates in the value chain of a super distributed sale depends on how many (if any) super distributions are specified in the contract between the distributor and the retailer. Each increment of the super distribution tick may be used to adjust the retail tick. For example, the retail tick may be 100% for an original sale, 75% for a first super distribution, 50% for a second super distribution, 25% for a third super distribution, and 0% for all further super distributions. Tracking may also be implemented based on date, e.g., from date of purchase or from date of release. In the latter case, the tracking may be as follows: 100%, first week; 50%, until one month; 25%, for six months; and 0%, after six months.

Delivery tracking/payment: Payments to value chain participants may be impacted by the means of delivery. For example, extra value delivery services, such as cable, satellite, ISP caching, RSVP, may impact the offer in that they typically include direct payments to the delivery service. Because delivery costs are oftentimes significant, prepayment discounts may also be utilized in order to entice consumers to agree to purchase before downloading. Offers reflecting discounts for prepayment may be achieved globally, per retailer/class of retailer, affinity v. full featured, online v. brick and mortar, individual retailer basis, or per title. Resellers, e.g., the owner of a kiosk, may also be entitled to a share of the retail tick, or an additional retail tick.

While the invention has been particularly shown and described with reference to preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention.